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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/058,301	01/30/2002	Kaoru Katoh	053466-0321	7349

22428 7590 03/30/2004

FOLEY AND LARDNER  
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3000 K STREET NW  
WASHINGTON, DC 20007

EXAMINER
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BAHTA, ABRAHAM

ART UNIT	PAPER NUMBER
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1775

DATE MAILED: 03/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/058,301

Applicant(s)

KATOH ET AL.

Examiner

Abraham Bahta

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) 5 and 6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### DETAILED ACTION

Applicant's election of Group I (claims 1-4) in Paper No. 5 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Kaneko et al (USP 5,218,757).

Kaneko teaches a thin carbon rod or microelectrode (col. 5, line 39-45) comprising crystalline carbon (col. 5, lines 23-30) and a glass-like matter produced by carbonizing an organic material. See col. 6, lines 27-31. In addition, the reference teaches the composite carbon material may have an oriented system such that end surfaces of highly developed graphite crystals are arranged to be perpendicular to the electrode surface. See col. 6, lines 32-36. The thin carbon rod or microelectrode may be used to prick a living body and examine food for electrochemical detection. See col. 2, line 63 through col. 3, line 7. Kaneko also teaches the tapered carbon microelectrode may be used for detecting dopamine (a kind of catecholamines which are

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neurotransmitters secreted from nerve cells) in the presence of Vitamin C. See col. 9, lines 20-28.

Regarding claim 4, the reference teaches in the tapered carbon microelectrode, the diameter of the thick end portion of the tapered carbon thin rod may be 5mm-0.1mm and that of the thin end portion may be 0.1 mm or less and according to PROKON-METRIC CONVERSION 0.1mm is 100 micrometer.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneko '757.

As discussed above, Kaneko teaches applicant's claimed invention except the amount of the crystalline carbon as recited in claim 3; however, it would have been obvious to one of ordinary skill in the art to select an appropriate amount of the crystalline powder. Motivation for such modification is provided at col. 6, lines 45-57 of Kaneko which teaches the amount of the crystalline carbon to be compounded varies depending on the type of the organic binder which produces the glass-like matter and the diameter of the electrode desired and the ultimate use of the product.

**Response to Applicant's remarks/arguments**

With respect to the rejection of claims 1-2 and 4 under 102 (b), the applicant argues Kaneko '757 does not disclose or suggest a carbon microrod that has a cell adsorbed to the microrod. The Examiner disagrees. Kaneko teaches the tapered carbon microelectrode may be used for detecting dopamine (a kind of catecholamines which are neurotransmitters secreted from nerve cells) in the presence of vitamin C. See col. 9, lines 20-28.

Regarding the rejection of claim 3 under 103(a), the applicant argues Kaneko would not have rendered obvious the limitation of claim 3 because Kaneko does not teach or suggest a carbon microrod that has a cell adsorbed to it. The Examiner contends, as discussed above, Kaneko teaches applicant's claimed invention except the amount of the crystalline carbon as recited in claim 3; however, the skilled artisan would find it obvious to vary the amount because Kaneko teaches the amount of the crystalline carbon to be compounded varies depending on the type of organic binder which produces the glass-like matter and the diameter of the electrode desired and the ultimate use of the product. See col. 6, lines 45-57.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

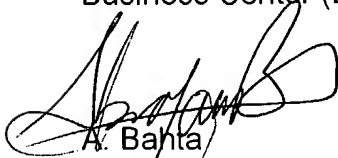
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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Abraham Bahta whose telephone number is (571) 272-1532. The Examiner can normally be reached Monday-Friday from 11:30 AM -8:00 PM (EST).

If attempts to reach the Examiner by telephone are unsuccessful, the examiner's supervisor Deborah Jones can be reached on (571) 272-1535. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



A. Bahta

03/08/04



DEBORAH JONES  
SUPERVISORY PATENT EXAMINER